Practice Problems

Instructions: Complete each of the following as practice.

1. Compute the orthogonal complement $W^{\perp}$ of each subspace $W \leq \mathbb{R}^n$ below.
   (a) $W = \{(x, y, z, w) : x + y + z = 0 \text{ and } x - y + w = 0\}$
   (b) $W = \{(x, y, z, w) : x + y + z + w = 0\}$
   (c) $W = \{t(1, -1, 3, -2) : t \in \mathbb{R}\}$
2. For further exercises, see the following (note: this list may break with future versions of these textbooks).
   (a) Beezer NONE
   (b) Hefferon page 283 (problems 2.10 – 2.22).
   (c) Matthews NONE